[0015] Each client computer preferably downloads only that portion of the image data that is necessary for satisfying a user display request, as described hereinbelow. Continuing with the example above, the 3,600×4,800 image in an uncompressed state occupies a total of 51.84 MB (at 3 bytes per pixel). High fidelity compression typically reduces this by an order of magnitude, to roughly 5 MB. Rather than requiring each client to download the entire 5 MB of image data, the present invention downloads that portion of the image data necessary to satisfy the user display request. The user display request is significantly less than the entire image size, since the maximum size image that can be viewed on a video monitor is the full video monitor pixel resolution, which may be 768×1,024 for example. Similarly when saving or printing the document, the user may specify a resolution less than 600 dpi for the save operation, or the printer resolution may be less than 600 dpi, in which case the client only needs to download a portion of the full image data.

[0016] The present invention also provides a fragmenting tool for converting standard documents containing high quality images into image-less documents, and a composing tool for converting image-less documents into standard documents. The fragmenting tool is used for creating documents for interactive viewing over a client/server network. The composing tool is used for displaying document pages, or portions of document pages, on a video monitor, for saving documents containing high quality images at user specified resolutions, and for printing such documents at resolutions appropriate to specified output devices.

[0017] The present invention is useful in the graphic arts industry for providing efficient on-line proofing capability to customers for pre-press jobs that include high quality images, and overcomes transmission delays prevalent in prior ant systems. It is also useful for console management of raster image processing (RIP) print jobs.

[0018] There is thus provided in accordance with a preferred embodiment of the present invention a method for on-line proofing of documents, including the steps of sending by a client computer a document request to a document server computer, transmitting a proof document from the document server computer to the client computer in response to the document request, sending by the client computer an image data request to an image server computer, transmitting image data from the image server computer to the client computer in response to the image data request, and combining the image data with the proof document.

[0019] There is further provided in accordance with a preferred embodiment of the present invention a system for on-line proofing of documents, including a first transmitter, situated within a client computer, sending a document request to a document server computer and sending an image data request to an image server computer, a second transmitter situated with the server computer transmitting a proof document from the document server computer to the client computer in response to the document request, and transmitting image data from the image server computer in response to the image data request, and a document composer combining the image data with the proof document.

[0020] There is still further provided in accordance with a preferred embodiment of the present invention a method for converting a document containing at least one image into a proof document, including extracting at least one image from the document, storing the at least one image as stored image data, and replacing the at least one image by at least one reference to the stored image data.

[0021] There is additionally provided in accordance with a preferred embodiment of the present invention a system for converting a document containing at least one image into a proof document, including a document fragmenter extracting at least one image from the document, a storage device for storing the at least one image as stored image data and a reference inserter replacing the at least one image by at least one reference to the stored image data.

[0022] There is further provided in accordance with a preferred embodiment of the present invention a method for converting a proof document into a standard document using at least one reference to image data stored on an image server computer, the proof document containing layout information, including the steps of accessing the image data stored on the image server computer in accordance with the at least one reference, producing at least one image, and composing the at least one image with the proof document according to the layout information.

[0023] There is still further provided in accordance with a preferred embodiment of the present invention a system for converting a proof document into a standard document using at least one reference to image data stored on an image server computer, the scalable document containing layout information, including a data retriever accessing the image data stored on the image server computer, producing at least one image, and an image composer positioning the at least one image within the proof document according to the layout information.

[0024] There is additionally provided in accordance with a preferred embodiment of the present invention a method for viewing documents, including the steps of sending a document request to a document server computer, receiving a proof document from the document server computer in response to the document request, sending an image data request to an image server computer, receiving image data from the image server computer in response to the image data request, and combining the image data with the proof document.

[0025] There is yet further provided in accordance with a preferred embodiment of the present invention a system for viewing documents, including a transmitter sending a document request to a document server computer and sending an image data request to an image server computer, a receiver receiving a proof document from the document server computer in response to the document request, and receiving image data from the image server computer in response to the image data request, and a document composer combining the image data with the proof document.

BRIEF DESCRIPTION OF THE DRAWINGS

[0026] The present invention will be more fully understood and appreciated from the following detailed description, taken in conjunction with the drawings in which:

[0027] **FIG. 1** is a simplified illustration of a network configuration for Internet publishing in which a preferred embodiment of the present invention operates;